

United States Department of the Interior

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DERCH REMEDIAL BROCKLIVENT SECTION

OFFICE OF SURFACE MINING
Reclamation and Enforcement
Wilkes-Barre Office
20 North Pennsylvania Avenue
Suite 3323
Wilkes-Barre, Pennsylvania 18701

June 13, 1988

JUN 21 1993

EPA-Region III

In Reply Refer To: 4231 AML 20

Michael Towle, Project Manager
PA CERCLA Remedial Enforcement
United States Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, PA 19107

Dear Mike:

As a result of our meeting in this office on March 9, 1988, you requested that the Office of Surface Mining Reclamation and Enforcement (OSMRE) Wilkes-Barre Office (WBO) assist in the technical evaluation of the "Butler Tunnel" work proposal submitted to EPA by the consulting firm of Gannett Fleming. As we understand your program, the overall objective of your work is to determine the potential for health and safety hazards resulting from the past injection of toxic wastes into the abandoned underground Butler Mine workings. This office has been asked to review both the background information on the underground conditions at the site as well as the Gannett Fleming proposal which was submitted to us by letter from you dated April 6, 1988. This letter documents our present understanding of the underground conditions, and recommends additional drilling at suggested locations.

It must be noted at this time that the size of the area involved, the interconnected multiple bed mining, the fluctuating level of the mine pool, and the inaccessibility of the mine workings, all increase the difficulty of defining the three-dimensional distribution of contaminants underground. The presentation of the so-called "Butler Tunnel mining system" in the Enviresponse and the Gannett Fleming work was found to be factually correct but incomplete. The Enviresponse attempt to identify the affected underground area and possible pathways is a reasonable method of exploration. However, the implementation of the work proposed by Enviresponse was not completed. Although one possible pathway was identified, neither all nor the bulk of contaminant travel was completely attributed to the possible pathway.

The Gannett Fleming proposal involves drilling of additional boreholes to establish three monitoring wells in underground areas of suspected contamination. The proposal also calls for monitoring of these three boreholes, as well as previously drilled boreholes, and monitoring at the tunnel mouth where overflow enters the Susquehanna River. Gannett Fleming also agreed that if findings from the above study were insufficient, further work would be provided to delineate the distribution of the contaminants and/or reasonably exhaust the possibility of unforeseen further contamination from the injected wastes.

OSMRE agrees that the above is generally a reasonable approach. However, OSMRE would recommend additional monitoring boreholes, mainly because of the size of the possible affected area. It is believed that contaminats may be trapped at the surface of the so-called pool No. 2, therefore additional boreholes should be drilled to attempt to intercept the mine water pool where its surface cuts the coalbed. These boreholes should be drilled at approximately 600-foot intervals below the old drainage ditch.

If I can provide additional information please contact me.

Sincerely,

Dr. John A. Holbrook II Chief, Anthracite Reclamation

Programs Branch